

REMARKS:

Claims 21-34 are currently pending in the application. Claims 21-34 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 78-92 of copending Application No. 10/829,790. Claims 21 and 23 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Perrier et al. Claim 22 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Perrier et al. in view of Cathel. Claims 24-27, 29, and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Perrier et al. in view of Valdner. Claims 31, 32, and 34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Perrier et al. in view of Lee. Claim 33 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Perrier et al. in view of Mai.

Provisional Rejections Under Obviousness-Type Double Patenting:

Claims 21-34 stand rejected under the judicially created doctrine of obviousness-type double patenting over Claims 78-92 of U.S. Application No. 10/829,790.

United States Application No. 10/829,790 is commonly owned and is copending with the subject application. The Applicant is currently prosecuting U.S. Application No. 10/829,790 and is awaiting an Office Action from the same Examiner. Therefore, the Applicant respectfully requests that the Examiner hold the provisional double-patenting rejection in abeyance until claims in either the subject application or U.S. Application No. 10/829,790 are found to be allowable.

Rejections Under 35 U.S.C. § 102(b):

Claims 21 and 23 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Perrier et al.

The Examiner states that Perrier discloses an umbrella apparatus 1 (Figure 1) comprising a canopy portion 8 hingedly coupled to a pole portion 9 (Figure 1, English translation, page 2, line 1); a rechargeable electrical power system 3 - rechargeable batteries - energizing the umbrella apparatus 1 (Figure 1, English translation, page 2,

lines 10 and 11); a solar system 2 disposed on the top of the pole portion 9 above the canopy 8 (Figure 1, English translation, page 2, lines 9 and 10); the solar system 2 able to collect solar energy, and convert solar energy into electrical energy (Figure 1, English translation, page 2, lines 9-11); the solar system conductively coupled, with electrical wires 22 (Figure 2), to the rechargeable electrical power system 3 (Figure 1, English translation, page 2, lines 9 and 10); the electrical energy converted from the solar energy by the solar system 2 being used for recharging the rechargeable electrical energy system 3 (Figure 1, English translation, page 2, lines 10 and 11); and the rechargeable energy system 3 disposed by the second housing 4 below the canopy portion 8 (Figure 1, English translation, page 2, lines 10 and 11).

Perrier et al. disclose an umbrella 1 having a hollow mast 9, a housing 10 having openings 11, a canopy 8, stays 15 to which the canopy 8 is attached, a base 4, batteries 3 carried in the base 4, a cord 6 and a pulley 7 for controlling the canopy 8, a light 12 carried with in the hollow mast 9, a solar collector 2 for recharging the batteries 3, and a power cord 14 for connecting to an alternate source of energy. The canopy 8 is composed of either: (1) a perforated fabric; or (2) an impermeable unperforated fabric having a valence 23 held at the end of supports 24 that forms a peripheral gutter for draining off water. The solar collector 2 covers all or part of the canopy 8. The light 12 is equipped with a ventilated protective tube 13 made of perforated metal, screen, Plexiglas, glass, or a translucent or colored sleeve. Another light 25 is located in the base 4.

The solar collector 2 in the Perrier et al. device must fold down when the canopy is in the down position. Because the solar collector 2 moves with the canopy 8, the solar collector 2 is ineffective for several reasons. First, when the solar collector 2 is folded down with the canopy 8, the material of the canopy 8 blocks and shades the sun from shining onto the solar collector 2, thereby preventing sunshine from hitting the solar collector 2. Second, even if parts of the solar collector 2 are exposed when the canopy 8 is in the down position, the solar collector 2 is in a substantially vertical position, which is very ineffective for collecting solar energy. Third, the solar collector 2 is susceptible to damage from the canopy 8, the stays 15, the supports 24, the

peripheral gutter, the flexible drain pipe, and other components of the umbrella 1, when the canopy 8 is repeatedly opened and closed.

Claim 21 is hereby amended to clarify that the solar energy system remains in a fixed position relative to pole portion when the canopy portion is moved between an open position and a closed position. This is merely one of the features that distinguishes the claimed invention over the Perrier et al. device. In the claimed invention, the solar energy system remains in a fixed position relative to the pole portion when the canopy portion is moved up and down.

Claim 23 is not hereby amended; however, Claim 23 is a dependent claim based upon Claim 21, which is hereby amended.

For these reasons, Perrier et al. fails to disclose all of the limitations of Claims 21 and 23, as amended. Therefore, the Applicant submits that Perrier et al. do not anticipate Claims 21 and 23, as amended.

Rejections under 35 U.S.C. § 103(a):

Claim 22 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Perrier et al. in view of Cathel.

The Examiner states that Perrier discloses an umbrella apparatus (Figure 1) comprising a solar energy system disposed in a housing on the top of the pole portion above the canopy, and a rechargeable energy system - a rechargeable battery - positioned in a separate housing positioned below the canopy portion. The Examiner concedes that Perrier does not teach a single housing accommodating both the rechargeable energy system and the solar energy system above the canopy, and the housing mounted on the pole portion above the canopy portion. The Examiner relies upon Cathel for these features.

The Examiner states that Cathel discloses an illuminated sign (Figure 1) including a housing 26 accommodating a solar panel 60 and a rechargeable electrical

power source 64 (Figures 1 and 2, column 3, lines 13 and 46 -51). The Examiner asserts that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the umbrella apparatus of Perrier et al. by positioning the solar panel and the rechargeable batteries in a housing as taught by Cathel for the benefits of cost saving resulting from reduction of parts of the device.

The Applicant reiterates here the distinguishing comments set forth above regarding the Perrier et al. disclosure. In particular, the Applicant points out that Claim 21 is hereby amended to clarify that the claimed solar energy system is fixed relative to the pole portion, even as the canopy portion is moved from the open position to the closed position, and vice versa. As such, the claimed invention is distinguished over and is not anticipated by the Perrier et al. device.

Cathel discloses an illuminated mailbox address device 10 having a housing 26 adapted for connection to a traditionally-shaped, generally rectangular mailbox 14. The address device 10 also has a solar cell 60 for collecting energy from the sun, a rechargeable battery 64 mounted within the housing 26, and a photosensitive cell 62 which acts as a switch to permit battery 64 to power a light means used within the device 10. A pair of light emitting diodes (LED's) 76 are used to illuminate an address indicia 80.

There are several distinguishing features between the Cathel device and the claimed invention. The Cathel device is not related to illumination of a large umbrella having a canopy portion. Rather, the Cathel address device is adapted to illuminate a small address indicia 80 atop a conventional mailbox. The Cathel device is a mechanism for backlighting address indicia. The Cathel device is exclusively designed to fit the top portion of a mailbox, not an umbrella. The Cathel device is specifically configured to mate with the top portion of a mailbox with double-sided tape, such that a flat blade screwdriver may be used to apply a small amount of pressure to "pop" housing 26 off of the mailbox. In the Cathel device, the lighting elements must be placed inside the housing so that the lighting elements may backlight the address indicia. The Cathel device performs a completely different function than the claimed invention. Cathel makes no mention, teaching, or disclosure of casting light under an umbrella to provide light for reading,

entertaining, and other outdoor activities. There is no motivation whatsoever in Cathel to combine his teachings with those of Perrier et al. to come up with the claimed invention. In addition, because Cathel includes the lighting elements within the housing, and because Cathel mounts his device atop a mail box with double-stick tape, the Applicant submits that Cathel teaches away from the claimed invention.

With regard to the Examiner's comment: "for the benefits of cost saving resulting from reduction of parts of the device," the Applicant notes that no such feature or limitation is included in Claim 22, nor should any such limitation be read into any claim.

Claim 22 is not hereby amended; however, Claim 22 is a dependent claim based upon Claim 21, which is hereby amended. For reasons set forth above, the Applicant submits that it would not have been obvious for a person of ordinary skill in the art at the time the invention was made to combine the teachings of Perrier et al. and Cathel to arrive at the claimed invention. The Applicant respectfully submits that the Examiner's rejection of Claim 22 under 35 U.S.C. § 103(a) is traversed and overcome and that Claim 22 is now in condition for allowance. Therefore, the Applicant respectfully requests that Claim 22 be allowed.

Claims 24-27, 29, and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Perrier et al. in view of Valdner.

With regard to Claim 24, the Examiner states that Perrier et al. disclose a solar energy based umbrella apparatus comprising an electrical charging system receiving power from a solar energy system. The Examiner concedes that Perrier et al. do not disclose an umbrella apparatus comprising a charging system receiving power from AC power outlet. The Examiner relies upon Valdner for this feature.

The Examiner states that Valdner discloses an umbrella apparatus 10 including a recharging system 56 receiving power from AC power outlet 54 for recharging the rechargeable energy system 44 (Figures 1 and 3, column 2, lines 37-43). The Examiner states that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the umbrella apparatus of Perrier et al. by providing the

AC-based charging system in addition to the solar energy based charging system as taught by Valdner for the benefits of highly reliable and economical power-supply system based on redundancy of the power sources.

The Applicant reiterates here the distinguishing comments set forth above regarding the Perrier et al. disclosure. In particular, the Applicant points out that Claim 21 is hereby amended to clarify that the claimed solar energy system is fixed relative to the pole portion, even as the canopy portion is moved from the open position to the closed position, and vice versa. As such, the claimed invention is distinguished over and is not anticipated by the Perrier et al. device.

In addition, although Perrier et al. appear to disclose a lighted umbrella with rechargeable batteries, Perrier et al. do not disclose, teach, mention, suggest, or disclose a motivation for using an AC power source to recharge the rechargeable batteries. As explained on page 2, line 12 of the translation provided by the third-party requester, the power cord 14 disclosed in Perrier et al. is for "connecting to another source of energy ..." The batteries 3 are only recharged by the solar collector 2. Thus, the Perrier et al. device must operate on either the rechargeable batteries 3 or another source of energy via the power cord 14. In the Perrier et al. disclosure, the only use of AC power is as an alternate power source. Perrier et al. make no suggestion whatsoever of combining or providing rechargeable batteries that can be recharged by both a solar energy recharging system and an electrical charging system that is adapted to receive power from an AC power source.

Valdner discloses a hand-held, air cooled umbrella 10 having a rod 12, a handle 14 with hand grips 16, a top spring 18, a runner 20, a plurality of stretchers 22, and a collapsible canopy 24. The umbrella 10 includes flat ribs 26 with holes 28 to vent hot air from under the canopy 24. An electric fan 30 powered by an electric motor 32 is built into the rod 12. A solar cell panel 38 mounted to the apex of the canopy 24 provides power to the electric fan 30 on hot sunny days. In addition, the umbrella 10 includes a rechargeable handle battery pack 44 that plugs into the bottom end of the handle 14 to supply power to the electric fan 30 on hot sunless days and at night when there is no solar energy

available. The rechargeable handle battery pack 44 may be charged utilizing a separate charger assembly 54 having plugs 58 for plugging into an AC power outlet.

There are several distinguishing features between the Valdner device and the claimed invention. Most importantly, the Valdner device is a hand-held umbrella with a cooling fan, not a large lighted patio umbrella. In fact, in referring to large umbrellas that people sit under, Valdner states: "While these units may be suitable for the particular purpose to which they address, they would not be suitable for purposes of the present invention as heretofore described." Column 1, lines 14-17. Thus, Valdner expressly teaches away from large patio umbrellas.

Although Valdner discloses a rechargeable battery pack that is adapted to receive power from an AC power source, the Valdner device is not designed to be used while the battery pack is being recharged by or connected to the AC power source. On hot sunny days, the solar cell panel 38 runs the electric fan 30. On hot sunless days and nights, the rechargeable handle battery pack 44 can be used to supply the power. In the Valdner device, the solar cell panel 38 is used to directly drive the load of the electric fan 30. Other than the solar cell panel 38, the only means taught by Valdner for supplying power to the electric fan 30 is by using the rechargeable handle battery pack 44, as set forth at column 3, lines 3-6: "On hot sunless days and nights the electric plug 46 may be inserted into the electric socket 40 to now supply power to the electric fan 30." The only purpose mentioned by Valdner for the separate charger assembly 54 is to recharge the rechargeable handle battery pack 44. Valdner makes absolutely no mention or suggestion of using the umbrella while the separate charger assembly 54 is connected. Valdner discloses no motivation to combine a large umbrella with a rechargeable electrical power source that is adapted to receive power from an AC power source.

On the other hand, the claimed invention is directed toward an umbrella apparatus having a pole portion, a canopy portion hingedly coupled to the pole portion, a rechargeable electrical power system for providing electrical power to the umbrella, a solar energy system coupled to the rechargeable electrical power source, and an electrical charging system for recharging the rechargeable electrical power system, wherein the

electrical charging system is adapted to receive power from an AC power outlet. Neither Perrier, Valdner, nor any other reference cited by the Examiner, teach, disclose, mention, suggest, or disclose a motivation to combine such a combination of features. This claimed electrical charging system allows the batteries to be recharged by either the solar energy system or an AC power source. In the claimed invention, the solar energy system does not directly drive the load. Rather, the rechargeable electrical power source drives the load, and the solar energy system recharges the rechargeable electrical power source.

In addition, in the claimed invention, the AC power source is not limited to merely powering the umbrella. Rather, an AC power source can be used to actually recharge the rechargeable batteries. Because the claimed umbrella is a large patio-type umbrella, the rechargeable electric power source may be recharged via the solar energy system or an AC power source while the umbrella is being used for its intended purpose. In other words, the claimed umbrella is used while it is supported in a generally stationary position, not while the user is walking down the street.

With regard to the Examiner's comment: "for the benefits of highly reliable and economical power-supply system based on redundancy of the power sources," the Applicant notes that no such feature or limitation is included in Claim 24, nor should any such limitation be read into any claim.

Claim 24 is not hereby amended; however, Claim 24 is a dependent claim based upon Claim 21, which is hereby amended. For reasons set forth above, the Applicant submits that it would not have been obvious for a person of ordinary skill in the art at the time the invention was made to combine the teachings of Perrier et al. and Valdner to arrive at the claimed invention. The Applicant respectfully submits that the Examiner's rejection of Claim 24 under 35 U.S.C. § 103(a) is traversed and overcome and that Claim 24 is now in condition for allowance. Therefore, the Applicant respectfully requests that Claim 24 be allowed.

With regard to Claim 25, the Examiner states that Perrier et al. disclose a solar energy based umbrella apparatus comprising a removable base portion attached to a pole portion. The Examiner concedes that Perrier et al. do not specifically disclose the

base being removable from the pole portion. The Examiner states that "Perrier teaches the umbrella apparatus including a pole portion 9 received in a sleeve - an extension of the base portion 4 - ; and the base portion 4 being removable by removing the adjusting screw (Figure 10)." The Examiner asserts that "[i]t would be [sic] have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Perrier, **as interpreted above** an [sic] modify the umbrella apparatus for the benefits of easy assembly and economical storage and shipping." (Emphasis added).

The Applicant submits that Examiner's interpretation of Perrier et al. is not well taken. The Examiner concedes that Perrier et al. do not disclose a removable base. Nowhere in Perrier et al. is the base described as being removable. **The only mention of a "sleeve" is in regard to the ventilated cover 13 for the light 12 located at the top of the mast 9.** Nevertheless, the Examiner makes his own interpretation of Perrier et al. as having a removable base. This is clearly impermissible hindsight. It is improper for the Examiner to add features from the claimed invention into the prior art when they do not exist in the prior art. If the base were removed from the Perrier et al. device, it would not work, because the base is where the batteries are located. There is no Figure 10 in the Perrier et al. disclosure. If the Examiner is referring to Figure 1, then the Applicant submits that Perrier provides no mention, explanation, or discussion of any "adjustment screws" shown on the base 4.

The Applicant reiterates here the distinguishing comments set forth above regarding the Perrier et al. disclosure. In particular, the Applicant points out that Claim 21 is hereby amended to clarify that the claimed solar energy system is fixed relative to the pole portion, even as the canopy portion is moved from the open position to the closed position, and vice versa. As such, the claimed invention is distinguished over and is not anticipated by Perrier et al.

With regard to the Examiner's comment: "for the benefits of easy assembly and economical storage and shipping," the Applicant notes that no such feature or limitation is included in Claim 25, nor should any such limitation be read into any claim.

Claim 25 is not hereby amended; however, Claim 25 is a dependent claim based upon Claim 21, which is hereby amended. For reasons set forth above, the Applicant submits that it would not have been obvious for a person of ordinary skill in the art at the time the invention was made to utilize the teachings of Perrier et al. to arrive at the claimed invention. The Applicant respectfully submits that the Examiner's rejection of Claim 25 under 35 U.S.C. § 103(a) is traversed and overcome and that Claim 25 is now in condition for allowance. Therefore, the Applicant respectfully requests that Claim 25 be allowed.

With regard to Claim 26, the Examiner states that Perrier et al. disclose the umbrella apparatus 1 (Figure 1) including the rechargeable electrical power system 3 positioned in the base 3 (Figure 1, English translation, page 2, lines 10 and 11).

The Applicant reiterates here the distinguishing comments set forth above regarding the Perrier et al. disclosure. In particular, the Applicant points out that Claim 21 is hereby amended to clarify that the claimed solar energy system is fixed relative to the pole portion, even as the canopy portion is moved from the open position to the closed position, and vice versa. As such, the claimed invention is distinguished over and is not anticipated by the Perrier et al. device.

In addition, the Applicant reiterates that it would be impermissible hindsight for the Examiner to add features from the claimed invention into the prior art when they do not exist in the prior art. If the base were removed from the Perrier et al. device, it would not work, because the base is where the batteries are located. The Applicant submits that Perrier et al. provide no mention, explanation, or discussion of any "adjustment screws" shown on the base 4.

Claim 26 is not hereby amended; however, Claim 26 is a dependent claim based upon Claim 21, which is hereby amended, and intervening claims. For reasons set forth above, the Applicant submits that it would not have been obvious for a person of ordinary skill in the art at the time the invention was made to utilize the teachings of Perrier et al. to arrive at the claimed invention. The Applicant respectfully submits that the Examiner's rejection of Claim 26 under 35 U.S.C. § 103(a) is traversed and

overcome and that Claim 26 is now in condition for allowance. Therefore, the Applicant respectfully requests that Claim 26 be allowed.

With regard to Claim 27, the Examiner states that Perrier in view of Valdner discloses an umbrella apparatus meeting the limitations in similar manner as applied for Claim 24 detailed above.

The Applicant reiterates here the distinguishing comments set forth above regarding the Perrier et al. disclosure. In particular, the Applicant points out that Claim 21 is hereby amended to clarify that the claimed solar energy system is fixed relative to the pole portion, even as the canopy portion is moved from the open position to the closed position, and vice versa. In addition, the Applicant reiterates that it would be impermissible hindsight for the Examiner to add features from the claimed invention into the prior art when they do not exist in the prior art. If the base were removed from the Perrier et al. device, it would not work, because the base is where the batteries are located. The Applicant submits that Perrier et al. provide no mention, explanation, or discussion of any "adjustment screws" shown on the base 4. As such, the claimed invention is distinguished over and is not anticipated by the Perrier et al. device.

In addition, the Applicant reiterates here the distinguishing comments set forth above regarding the Valdner disclosure. In particular, although Valdner discloses a rechargeable battery pack that is adapted to receive power from an AC power source, the Valdner device is not designed to be used while the battery pack is being recharged by or connected to the AC power source. On hot sunny days, the solar cell panel 38 runs the electric fan 30. On hot sunless days and nights, the rechargeable handle battery pack 44 can be used to supply the power. In the Valdner device, the solar cell panel 38 is used to directly drive the load of the electric fan 30. Other than the solar cell panel 38, the only means taught by Valdner for supplying power to the electric fan 30 is by using the rechargeable handle battery pack 44, as set forth at column 3, lines 3-6: "On hot sunless days and nights the electric plug 46 may be inserted into the electric socket 40 to now supply power to the electric fan 30." The only purpose mentioned by Valdner for the separate charger assembly 54 is to recharge the rechargeable handle

battery pack 44. Valdner makes absolutely no mention or suggestion of using the umbrella while the separate charger assembly 54 is connected. Valdner discloses no motivation to combine a large umbrella with a rechargeable electrical power source that is adapted to receive power from an AC power source.

On the other hand, the claimed invention is directed toward an umbrella apparatus having a pole portion, a canopy portion hingedly coupled to the pole portion, a rechargeable electrical power system for providing electrical power to the umbrella, a solar energy system coupled to the rechargeable electrical power source, and an electrical charging system for recharging the rechargeable electrical power system, wherein the electrical charging system is adapted to receive power from an AC power outlet. Neither Perrier, Valdner, nor any other reference cited by the Examiner, teach, disclose, mention, suggest, or disclose a motivation to combine such a combination of features. This claimed electrical charging system allows the batteries to be recharged by either the solar energy system or an AC power source. In the claimed invention, the solar energy system does not directly drive the load. Rather, the rechargeable electrical power source drives the load, and the solar energy system recharges the rechargeable electrical power source.

In addition, in the claimed invention, the AC power source is not limited to merely powering the umbrella. Rather, an AC power source can be used to actually recharge the rechargeable batteries. Because the claimed umbrella is a large patio-type umbrella, the rechargeable electric power source may be recharged via the solar energy system or an AC power source while the umbrella is being used for its intended purpose. In other words, the claimed umbrella is used while it is supported in a generally stationary position, not while the user is walking down the street.

Claim 27 is not hereby amended; however, Claim 27 is a dependent claim based upon Claim 21, which is hereby amended, and intervening claims. For reasons set forth above, the Applicant submits that it would not have been obvious for a person of ordinary skill in the art at the time the invention was made to utilize the teachings of Perrier et al. to arrive at the claimed invention. The Applicant respectfully submits that the Examiner's rejection of Claim 27 under 35 U.S.C. § 103(a) is traversed and

overcome and that Claim 27 is now in condition for allowance. Therefore, the Applicant respectfully requests that Claim 27 be allowed.

With regard to Claim 29, the Examiner states that Perrier et al. disclose a solar energy based umbrella apparatus comprising an electrical recharging system receiving power from a solar energy system. The Examiner concedes that Perrier does not disclose an umbrella apparatus comprising a rechargeable electrical power system, which is detachable from the umbrella apparatus, and attachable to a remote an AC docking station. The Examiner relies upon Valdner for this feature.

The Examiner states that Valdner discloses an umbrella apparatus 10 including a rechargeable electrical power system 44, which is detachable from the umbrella apparatus 10, and attachable to a remote an AC docking station receiving power plug 58 (Figure 3, column 2, lines 37-43). The Examiner asserts that it would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the umbrella apparatus of Perrier by providing the AC-based rechargeable power system as taught by Valdner for the benefits of highly reliable and safe power-supply system promoting relocation of the device.

The Applicant reiterates here the distinguishing comments set forth above regarding the Perrier et al. disclosure. In particular, the Applicant points out that Claim 21 is hereby amended to clarify that the claimed solar energy system is fixed relative to the pole portion, even as the canopy portion is moved from the open position to the closed position, and vice versa. In addition, the Applicant reiterates that it would be impermissible hindsight for the Examiner to add features from the claimed invention into the prior art when they do not exist in the prior art. If the base were removed from the Perrier et al. device, it would not work, because the base is where the batteries are located. The Applicant submits that Perrier et al. provide no mention, explanation, or discussion of any "adjustment screws" shown on the base 4. As such, the claimed invention is distinguished over and is not anticipated by the Perrier et al. device.

In addition, the Applicant reiterates here the distinguishing comments set forth above regarding the Valdner disclosure. In particular, although Valdner discloses a rechargeable battery pack that is adapted to receive power from an AC power source, the Valdner device is not designed to be used while the battery pack is being recharged by or connected to the AC power source. On hot sunny days, the solar cell panel 38 runs the electric fan 30. On hot sunless days and nights, the rechargeable handle battery pack 44 can be used to supply the power. In the Valdner device, the solar cell panel 38 is used to directly drive the load of the electric fan 30. Other than the solar cell panel 38, the only means taught by Valdner for supplying power to the electric fan 30 is by using the rechargeable handle battery pack 44, as set forth at column 3, lines 3-6: "On hot sunless days and nights the electric plug 46 may be inserted into the electric socket 40 to now supply power to the electric fan 30." The only purpose mentioned by Valdner for the separate charger assembly 54 is to recharge the rechargeable handle battery pack 44. Valdner makes absolutely no mention or suggestion of using the umbrella while the separate charger assembly 54 is connected. Valdner discloses no motivation to combine a large umbrella with a rechargeable electrical power source that is adapted to receive power from an AC power source.

On the other hand, the claimed invention is directed toward an umbrella apparatus having a pole portion, a canopy portion hingedly coupled to the pole portion, a rechargeable electrical power system for providing electrical power to the umbrella, a solar energy system coupled to the rechargeable electrical power source, and an electrical charging system for recharging the rechargeable electrical power system, wherein the electrical charging system is adapted to receive power from an AC power outlet. Neither Perrier, Valdner, nor any other reference cited by the Examiner, teach, disclose, mention, suggest, or disclose a motivation to combine such a combination of features. This claimed electrical charging system allows the batteries to be recharged by either the solar energy system or an AC power source. In the claimed invention, the solar energy system does not directly drive the load. Rather, the rechargeable electrical power source drives the load, and the solar energy system recharges the rechargeable electrical power source.

In addition, in the claimed invention, the AC power source is not limited to merely powering the umbrella. Rather, an AC power source can be used to actually recharge the rechargeable batteries. Because the claimed umbrella is a large patio-type umbrella, the rechargeable electric power source may be recharged via the solar energy system or an AC power source while the umbrella is being used for its intended purpose. In other words, the claimed umbrella is used while it is supported in a generally stationary position, not while the user is walking down the street

With regard to the Examiner's comment: "for the benefits of highly reliable and safe power-supply system promoting relocation of the device," the Applicant notes that no such feature or limitation is included in Claim 29, nor should any such limitation be read into any claim.

Claim 29 is not hereby amended; however, Claim 29 is a dependent claim based upon Claim 21, which is hereby amended, and intervening claims. For reasons set forth above, the Applicant submits that it would not have been obvious for a person of ordinary skill in the art at the time the invention was made to combine the teachings of Perrier et al. and Valdner to arrive at the claimed invention. The Applicant respectfully submits that the Examiner's rejection of Claim 29 under 35 U.S.C. § 103(a) is traversed and overcome and that Claim 29 is now in condition for allowance. Therefore, the Applicant respectfully requests that Claim 29 be allowed.

With regard to Claim 30, the Examiner states that Perrier et al. disclose a solar energy based umbrella apparatus comprising a solar energy system conductively coupled to a rechargeable electrical power system. The Examiner concedes that Perrier does not specifically teach the solar power energy system conductively coupled to the rechargeable electrical power system by a releasable plug, the engagement of which would allow recharging of the rechargeable electrical power system. The Examiner relies upon Valdner for this feature.

The Examiner states that Valdner discloses an umbrella apparatus 10 including a rechargeable electrical power system 44, which is detachable from the solar energy system by a plug 46 (Figure 3, column 2, lines 34-37). The Examiner asserts that it would

have been obvious to one of ordinary skill in the art at the time of the invention to modify the umbrella apparatus of Perrier et al. by providing the releasable plug as taught by Valdner for the benefits of recharging the electrical power system in a controlled manner.

The Applicant reiterates here the distinguishing comments set forth above regarding the Perrier et al. disclosure. In particular, the Applicant points out that Claim 21 is hereby amended to clarify that the claimed solar energy system is fixed relative to the pole portion, even as the canopy portion is moved from the open position to the closed position, and vice versa. In addition, the Applicant submits that the Perrier et al. disclosure is completely devoid of any mention or teaching of disconnecting the solar energy system from the rechargeable electrical power source.

The Applicant reiterates here the distinguishing comments set forth above regarding the Valdner disclosure. In particular, the Applicant points out that, in the claimed invention, the solar system does not run the load by itself. In the claimed invention, the solar energy system merely recharges the rechargeable electrical power source. On the other hand, in the Valdner device, the fan can be run by the solar energy system **alone**. In Valdner, the rechargeable battery pack is only needed at night when the solar energy system cannot provide enough power to drive the fan, as set forth at column 3, lines 3-6: "On hot sunless days and nights the electric plug 46 may be inserted into the electric socket 40 to now supply power to the electric fan 30." Valdner makes absolutely no mention, suggestion, or provision for disconnecting the solar energy system from the rechargeable electrical power source.

With regard to the Examiner's comment: "for the benefits of highly reliable and safe power-supply system promoting relocation of the device," the Applicant notes that no such feature or limitation is included in Claim 30, nor should any such limitation be read into any claim.

Claim 30 is not hereby amended; however, Claim 30 is a dependent claim based upon Claim 21, which is hereby amended. For reasons set forth above, the Applicant submits that it would not have been obvious for a person of ordinary skill in the art at the time the invention was made to combine the teachings of Perrier et al. and Valdner to

arrive at the claimed invention. The Applicant respectfully submits that the Examiner's rejection of Claim 30 under 35 U.S.C. § 103(a) is traversed and overcome and that Claim 30 is now in condition for allowance. Therefore, the Applicant respectfully requests that Claim 30 be allowed.

Claims 31, 32, and 34 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Perrier et al. in view of Lee.

The Lee patent issued on 31 December 2002 and was filed on 22 May 2001. The subject application claims priority to U.S. Provisional Application No. 60/267,018 filed 7 February 2001. The Applicant submits that the subject matter of Claims 31, 32, and 34 is disclosed in U.S. Provisional Application No. 60/267,018. The priority date of the subject application precedes the filing date of the Lee patent. As such, the Lee patent is not a proper prior-art reference.

Claims 31, 32, and 34 are not hereby amended; however, Claims 31, 32, and 34 are dependent claims based upon Claim 21, which is hereby amended, and intervening claims. For the reasons set forth above, the Applicant submits that the Lee patent is not a proper prior-art reference. As such, the Applicant respectfully submits that the Examiner's rejections of Claims 31, 32, and 34 under 35 U.S.C. § 103(a) are traversed and overcome and that Claims 31, 32, and 34 are now in condition for allowance. Therefore, the Applicant respectfully requests that Claims 31, 32, and 34 be allowed.

Claim 33 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Perrier et al. in view of Mai.

The Examiner states that Perrier et al. disclose a solar energy based umbrella apparatus comprising a collapsible cover 2 supported a plurality of rib members, supporting a canopy 8 (Perrier, Figure 1). The Examiner concedes that Perrier et al. do not teach the lighting system being carried by the collapsible cover. The Examiner relies upon Mai for this feature.

The Examiner states that Mai discloses an umbrella apparatus including a lighting system 83 carried by the collapsible cover 30 (Figure 1, column 2, lines 64 and 65). The

Examiner asserts that it would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the umbrella apparatus of Perrier by providing and positioning the lighting system as taught by Mai for the benefits of high attention and decorative values of the device.

The Applicant reiterates here the distinguishing comments set forth above regarding the Perrier et al. disclosure. In particular, the Applicant points out that Claim 21 is hereby amended to clarify that the claimed solar energy system is fixed relative to the pole portion, even as the canopy portion is moved from the open position to the closed position, and vice versa.

Mai discloses a hand-held, battery operated umbrella with lights attached to the canopy. Mai makes no mention of utilizing rechargeable batteries or of using a solar energy system to recharge the batteries. In the Mai device, the LED's are attached to the upper side of the canopy so as to enhance the visibility of the umbrella at night. Mai makes no mention of placing the LED's on the underside of the canopy to provide light for the user to read by or to perform other outdoor activities. As such, Mai teaches away from the claimed invention. Because the Mai device is only used to warn others on dark, rainy nights, there is no motivation for Mai to add rechargeable batteries and a solar energy recharging system.

With regard to the Examiner's comment: "for the benefits of high attention and decorative values of the device," the Applicant notes that no such feature or limitation is included in Claim 33, nor should any such limitation be read into any claim.

Claim 33 is not hereby amended; however, Claim 33 is a dependent claim based upon Claim 21, which is hereby amended. For reasons set forth above, the Applicant submits that it would not have been obvious for a person of ordinary skill in the art at the time the invention was made to combine the teachings of Perrier et al. and Valdner to arrive at the claimed invention. The Applicant respectfully submits that the Examiner's rejection of Claim 33 under 35 U.S.C. § 103(a) is traversed and overcome and that Claim 33 is now in condition for allowance. Therefore, the Applicant respectfully requests that Claim 33 be allowed.

The Legal Standard for Novelty Rejections Under 35 U.S.C. § 102:

The following sets forth the legal standards for "anticipation."

The events that can lead to anticipation can be divided into the following seven categories, all defined by statute:

1. Prior Knowledge: The invention was publicly known in the United States before the patentee invented it.

2. Prior Use: The invention was publicly used in the United States either (i) before the patentee invented it; or (ii) more than one year before he filed his patent application.

3. Prior Publication: The invention was described in a printed publication anywhere in the world either (i) before the patentee invented it; or (ii) more than one year before he filed his patent application.

4. Prior Patent: The invention was patented in another patent anywhere in the world either (i) before the patentee invented it; or (ii) more than one year before he filed his application.

5. On Sale: The invention was on sale in the United States more than one year before the patentee filed his application.

6. Prior Invention: The invention was invented by another person in the United States before the patentee invented it, and that other person did not abandon, suppress or conceal the invention.

7. Prior U.S. Patent: The invention was described in a patent granted on a patent application filed in the United States before the patentee made the invention.

Each of those seven events has its own particular requirements, but they all have the following requirements in common:

1. Anticipation must be shown by clear and convincing evidence.
2. If one prior art reference completely embodies the same process or product as any claim, the product or process of that claim is anticipated by the prior art, and that claim is invalid. To decide whether anticipation exists, one must consider each of the elements recited in the claim and determine whether all of them are found in the particular item alleged to be anticipating prior art.
3. There is no anticipation unless every one of those elements is found in a *single* prior publication, prior public use, prior invention, prior patent, prior knowledge or prior sale. One may not combine two or more items of prior art to make out an anticipation. One should, however, take into consideration, not only what is expressly disclosed or embodied in the particular item of prior art, but also what inherently occurred in its practice.
4. There cannot be an accidental or unrecognized anticipation. A prior duplication of the claimed invention that was accidental, or unrecognized, unappreciated, and incidental to some other purpose is not an invalidating anticipation.

Those four requirements must be kept in mind and applied to each kind of anticipation in issue. The following additional requirements apply to some categories of anticipation.

1. Prior Knowledge: An invention is anticipated if it was known by others in the United States before it was invented by the patentee. "Known," in this context, means known to the public. Private knowledge, secret knowledge or knowledge confined to a small, limited group is not necessarily an invalidating anticipation. Things that were known to the public only outside the United States are not invalidating anticipation.

2. Prior Use: An invention is anticipated if it was used by others before it was invented by the patentee, or more than one year before the patentee filed his patent application. "Use," in this context, means a public use.

3. Prior Publication: A patent is invalid if the invention defined by the claims was described in a printed publication before it was invented by the patentee or more than one year prior to the filing date of his application. For a publication to constitute an anticipation of an invention, it must be capable, when taken in conjunction with the knowledge of people of ordinary skill in the art, of placing the invention in the possession of the reader. The disclosure must be enabling and meaningful. In determining whether the disclosure is complete, enabling, and meaningful, one should take into account what would have been within the knowledge of a person of ordinary skill in the art at the time, and one may consider other publications that shed light on the knowledge such a person would have had.

4. Prior Patent: If the invention defined by the claims was patented in the United States or a foreign country, either before it was invented by the inventor or more than one year before the inventor filed his patent application, then the invention was anticipated. The effective date for this type of anticipation is the date on which two things co-existed: (i) the owner of the referenced patent had the right to enforce that patent; and (ii) the reference patent was available to the public. What was "patented" in the reference patent is determined by what is defined by its claims, interpreted in the light of the general description.

5. On Sale: A patent is invalid if the invention claimed in it was on sale in the United States more than one year prior to the application filing date.

6. Prior Invention: If the invention defined by the claims was invented by another person, in the United States, before it was invented by the inventor, and that other person did not abandon, suppress, or conceal the invention, the invention lacks novelty. A prior invention, even if put in physical form and shown to produce the desired result, is not an invalidating anticipation unless some steps were taken to make it public. However, it is not necessary that the inventor had knowledge of that prior invention.

7. Prior U.S. Application: A patent is invalid for lack of novelty if the invention defined by the claims was described in a United States patent issued on a patent application filed by another person before the invention was made by the inventor. The

effective date of a prior application for purposes of this issue is the date on which it was filed in the United States. Foreign-filed patent applications do not apply. If the issued United States patent claims the benefit of more than one United States application, its effective date as an anticipation is the filing date of the first United States application that discloses the invention claimed in that referenced patent.

Experimental Use Exception: The law recognizes that it is beneficial to permit the inventor the time and opportunity to develop his invention. As such there is an "experimental use" exception to the "public use" and "on sale" rules. Even though the invention was publicly used or on sale, more than one year prior to the application filing date, that does not invalidate the patent, provided the principal purpose was experimentation rather than commercial benefit. If the primary purpose was experimental, it does not matter that the public used the invention or that the inventor incidentally derived profit from it.

When a public use or sale is shown, the burden is on the inventor to come forward with evidence to support the experimental use exception. Only experimentation by or under the control of the inventor qualifies for this exception. Experimentation by a third party, for its own purposes, does not qualify for this exception. Once the invention leaves the inventor's control, its use is a public one, even if further experimentation takes place.

The experimentation must relate to the claimed features of the invention. And it must be for the purpose of technological improvement, not commercial exploitation. If any commercial exploitation does occur, it must be merely incidental to the primary purpose of experimentation. A test done primarily for marketing, and only incidentally for technological improvement, is a public use.

The Legal Standard for Obviousness Rejections Under 35 U.S.C. § 103:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable

expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); M.P.E.P. § 2142. Moreover, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); M.P.E.P. § 2143.03.

With respect to alleged obviousness, there must be something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561 (Fed. Cir. 1986). In fact, the absence of a suggestion to combine is dispositive in an obviousness determination. *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573 (Fed. Cir. 1997). The mere fact that the prior art can be combined or modified does not make the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990); M.P.E.P. § 2143.01. The consistent criterion for determining obviousness is whether the prior art would have suggested to one of ordinary skill in the art that the process should be carried out and would have a reasonable likelihood of success, viewed in the light of the prior art. Both the suggestion and the expectation of success must be founded in the prior art, not in the Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); *In re O'Farrell*, 853 F.2d 894 (Fed. Cir. 1988); M.P.E.P. § 2142.

A recent Federal Circuit case makes it clear that, in an obviousness situation, the prior art must disclose each and every element of the claimed invention, and that any motivation to combine or modify the prior art must be based upon a suggestion in the prior art. *In re Lee*, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). Conclusory statements regarding common knowledge and common sense are insufficient to support a finding of obviousness. *Id.* at 1434-35.

CONCLUSION:

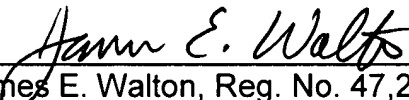
In view of the foregoing amendments and remarks, the Applicant submits that Claims 21-34, as hereby amended, are now in condition for allowance, and respectfully requests that the Examiner issue a Notice of Allowance.

No fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any fees that may be required, or credit any overpayments, to **Deposit Account No. 502806.**

Please link this application to Customer Nos. 50779 and 38441 so that its status may be checked via the PAIR System.

Respectfully submitted,

12/21/05
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CUSTOMER NOS. 50779 and 38441

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